=>

Uploading C:\Documents and Settings\EBernhardt\My
Documents\Stnexp\Queries\10540304.str

```
chain nodes:
13 14
ring nodes:
1 2 3 4 5 6 7 8 9 10 11 12 16 17 18 19
chain bonds:
2-13 5-9 13-14
ring bonds:
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 16-17 16-19
17-18 18-19
exact/norm bonds:
1-2 1-6 2-3 2-13 3-4 4-5 5-6 5-9 7-8 7-12 8-9 9-10 10-11 11-12 13-14
16-17 16-19 17-18 18-19
isolated ring systems:
containing 1: 7:
```

## G1:0,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:CLASS

10/540304

L1 STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 14:03:51 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 1802 TO ITERATE

100.0% PROCESSED 1802 ITERATIONS

SEARCH TIME: 00.00.01

1 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\* BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 33494 TO 38586 PROJECTED ANSWERS: 1 TO 80

1 SEA SSS SAM L1

=> s 11 sss full

FULL SEARCH INITIATED 14:03:57 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 34077 TO ITERATE

100.0% PROCESSED 34077 ITERATIONS 22 ANSWERS

SEARCH TIME: 00.00.01

22 SEA SSS FUL L1

=> file caplus

SINCE FILE TOTAL ENTRY SESSION 172.10 172.31 COST IN U.S. DOLLARS FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 14:04:02 ON 26 DEC 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 26 Dec 2007 VOL 147 ISS 26 FILE LAST UPDATED: 25 Dec 2007 (20071225/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 13 1 L3 T. 4

=> d 14 bib abs hitstr

```
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
```

AN 2004:550949 CAPLUS

DN 141:106497

FI Preparation of substituted 1-piperidin-4-yl-4-azetidin-3-yl-piperazine derivatives and their use as neurokinin antagonists

IN Janssens, Frans Eduard; Sommen, Francois Maria; De Boeck, Benoit Christian Albert Ghislain; Leenaerts, Joseph Elisabeth

PA Janssen Pharmaceutica N.V., Belg.

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

LA English

LA English

FAN.			APPLICATION NO.	
PI	WO 2004056800	A1 20040708	WO 2003-EP51042	20031217
	W: AE, AG, AL	AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
	CN, CO, CR	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
	GE, GH, GM	HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,
	LK, LR, LS	LT, LU, LV, MA,	MD, MG, MK, MN, MW,	MX, MZ, NI, NO,
	NZ, OM, PG	PH, PL, PT, RO,	RU, SC, SD, SE, SG,	SK, SL, SY, TJ,
	TM, TN, TR	TT, TZ, UA, UG,	US, UZ, VC, VN, YU,	ZA, ZM, ZW
	RW: BW, GH, GM	KE, LS, MW, MZ,	SD, SL, SZ, TZ, UG,	ZM, ZW, AM, AZ,
	BY, KG, KZ	MD, RU, TJ, TM,	AT, BE, BG, CH, CY,	CZ, DE, DK, EE,
	ES, FI, FR	GB, GR, HU, IE,	IT, LU, MC, NL, PT,	RO, SE, SI, SK,
			GA, GN, GQ, GW, ML,	
			CA 2003-2509406	
			AU 2003-299249	
			EP 2003-799583	20031217
	EP 1581517			
			GB, GR, IT, LI, LU,	
			CY, AL, TR, BG, CZ,	
	JP 2006512349	T 20060413	JP 2004-561505 AT 2003-799583 ES 2003-3799583	20031217
	AT 354572	T 20070315	AT 2003-799583	20031217
	ES 2282731	T3 20071016	ES 2003-3799583	20031217
			US 2005-540304	20050621
PRAI	WO 2002-EP14837			
	WO 2003-EP51042	W 20031217		
os	MARPAT 141:106497			

<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [0 = 0 or NR3; X = covalent bond, -O-, -S-, or -NR3; R1 independently = Arl, Arl-alkyl, and di(Arl)-alkyl; R2 = Ar2, Ar2-alkyl, di(Ar2)-alkyl Hetl. Hetl-alkyl; R3 independently = H or alkyl; Y = covalent bond, -CO-, -SO2-, >C:CHR or >C:NR, wherein R = H, CN or NO2; M independently = covalent bond, (un) substituted-alkyl, -(un) saturated carbocycle; L = H, alkyloxy, Ar3oxy, alkylamine, etc.; Arl = (un) substituted phenyl; Ar2 = (un) substituted naphthalenyl or Ph with substituent(s) selected from halo, alkyl, CN, aminocarbonyl, and alkyloxy; Ar3 = (un) substituted naphthalenyl or Ph with substituent(s) selected from

halo, alkyl, CN, amino, alkyloxy, OH, pyridinyl, etc.; Hetl = monocyclic heterocyclic radical selected from pyrrolyl, pyrazolyl, imidazolyl, furanyl, etc.; m = 1 or 2 provided that if m = 2, then n = 1; n = 0-2; p =1-2; q = 0-1] and their pharmaceutically acceptable salts having neurokinin antagonistic activity, in particular NK1 antagonistic activity and NK1/NK3- antagonistic activity, their preparation, compns. comprising them and their use as a medicine, in particular for the treatment of schizophrenia, emesis, anxiety, depression, irritable bowel syndrome (IBS), circadian rhythm disturbances, pain, neurogenic inflammation, asthma, micturition disorders such as urinary incontinence and nociception are disclosed. Thus, e.g., II was prepared by reaction of (2R-trans)-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-(1piperazinyl)piperidine (preparation given) with 1-(diphenylmethyl)-3-azetidinyl methanesulfonate. For selected compds. of the invention, receptor binding pIC50 values for h-NK1 were in a range from 6.69-8.13. In view of their capability to antagonize the actions of tachykinins by blocking the neurokinin receptors, and in particular antagonizing the actions of substance P by blocking the NK receptors, the compds. according to the invention are useful as a medicine, in particular in the prophylactic and therapeutic treatment of tachykinin mediated conditions, such as, for instance CNS disorders, in particular depression, anxiety disorders, stress-related disorders, sleep disorders, cognitive disorders, personality disorders, schizoaffective disorders, eating disorders, neurodegenerative diseases, addiction disorders, mood disorders, sexual dysfunction, pain and other CNS related conditions; inflammation; allergic disorders; emesis; gastrointestinal disorders, in particular irritable bowel syndrome (IBS); skin disorders ; vasospastic diseases ; fibrosing and collagen diseases; disorders related to immune enhancement or suppression and rheumatic diseases and body weight control.

```
IT 718637-71-99 718637-72-09 718637-73-1P 718637-74-2P 718637-75-3P 718637-76-4P 718637-76-97 718637-76-97 718637-76-97 718637-80-09 718637-86-1P 718637-80-2P 718637-88-3P 718637-88-4P 718637-88-5P 718637-88-5P 718637-88-5P 718637-89-99 718637-97-2P 718637-91-3P 718637-92-4P
```

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(stereoselective preparation of piperidinylazetidinylpiperazines with tachykinin antagonist activity)

RN 718637-71-9 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(diphenylmethyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NAME)

Ph<sub>2</sub>CH

- RN 718637-72-0 CAPLUS
- CN Piperidine, 4-[4-(3-azetidiny1)-1-piperaziny1]-1-[3,5-bis(trifluoromethy1)benzoy1]-2-(phenylmethy1)-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- RN 718637-73-1 CAPLUS
- CN Piperidine, 4-[4-(1-benzoyl-3-azetidinyl)-1-piperazinyl]-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-, (2R,4\$)- (9CI) (CA INDEX NAME)

- RN 718637-74-2 CAPLUS
- CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-(1-pyrazinyl-3-azetidinyl)-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- RN 718637-75-3 CAPLUS
- CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-(3-thienylcarbonyl)-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-76-4 CAPLUS

CN Piperidine, 1=[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-(2-thienylsulfonyl)-3-azetidinyl]-1-piperazinyl]-, (2R, 4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-77-5 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-[(3R)-tetrahydro-3-furanyl]carbonyl]-3-azetidinyl]-1-piperazinyl]-, (2R,49)- (9CI) (CA INDEX NAME)

RN 718637-78-6 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(2,2-dimethyl-1-oxoproyl)]-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)- (9CI) (CA INDEX NABE)

Absolute stereochemistry.

RN 718637-79-7 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(2-chlorobenzoyl)3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,48)- (9CI) (CA INDEX
NAME)

RN 718637-80-0 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethy1)benzoy1]-4-[4-[1-(3-cyanobenzoy1)-3-azetidiny1]-1-piperaziny1]-2-(phenylmethy1)-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-81-1 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(3,4-difluorobenzoyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)-(9CI) (CA INDEX NAME)

718637-82-2 CAPLUS
Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-CN (3-pyridinylcarbonyl)-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-83-3 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-(pyrazinylcarbonyl)-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-84-4 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[3-[4-[(2R,4S)-1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-piperidinyl]-1-piperazinyl]-1-azetidinyl]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-85-5 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[3-[4-[(2R,4S)-1-[3,5bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-piperidinyl]-1piperazinyl]-1-azetidinyl]carbonyl]-, 1,1-dimethylethyl ester, (2R)- (CA INDEX NAME)

RN 718637-86-6 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-[(1,3-dimethyl-1H-pyrazol-5-yl)carbonyl]-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R, 48)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-87-7 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-2-(phenylmethyl)-4-[4-[1-[(3S)-tetrahydro-3-furanyl]carbonyl]-3-azetidinyl]-1-piperazinyl]-, (2R,4S)- (9CI) (CA INDEX NAME)

RN 718637-88-8 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(3-furanyloarbonyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 718637-89-9 CAPLUS

CN Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-[(4-methyl-1,2,3-thiadiazol-5-yl)carbonyl]-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,49)- (9CI) (CA NIDEX NAME)

- RN
- 718637-90-2 CAPLUS Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1- CN (cyclopropylcarbonyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R, 4S) - (9CI) (CA INDEX NAME)

## Absolute stereochemistry.

- RN 718637-91-3 CAPLUS
- Piperidine, 1-[3,5-bis(trifluoromethyl)benzoyl]-4-[4-[1-(1-oxo-2-phenylpropyl)-3-azetidinyl]-1-piperazinyl]-2-(phenylmethyl)-, (2R,4S)-CN (9CI) (CA INDEX NAME)

RN 718637-92-4 CAPLUS

RN /1863/-92-4 CAFEUS
Carbamic acid, [2-[3-[4-[(2R,4S)-1-[3,5-bis(trifluoromethyl)benzoyl]-2(phenylmethyl)-4-piperidinyl]-1-piperazinyl]-1-azetidinyl]-1,1-dimethyl-2oxoethyl]-, 1,1-dimethylethyl ester (9C1) (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file caold COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.74	178.05
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.78	-0.78

FILE 'CAOLD' ENTERED AT 14:04:21 ON 26 DEC 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> s 13 0 L3

=> file chemcats COST IN U.S. DOLLARS FULL ESTIMATED COST

SINCE FILE ENTRY SESSION 0.45 178.50 SINCE FILE TOTAL

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) CA SUBSCRIBER PRICE

SESSION ENTRY 0.00 -0.78

TOTAL

FILE 'CHEMCATS' ENTERED AT 14:04:28 ON 26 DEC 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

FILE LAST UPDATED 22 DECEMBER 2007 (20071222/UP)

For details on recent updates in CHEMCATS, enter NEWS FILE at an arrow prompt. For the list of suppliers currently in the file, enter HELP SPA, HELP SPB, HELP SPC, HELP SPDH, HELP SPIN, HELP SPOP, and HELP SPOZ. For the list of current catalogs, enter HELP CTA, HELP CTB, HELP CTC, HELP CTDH, HELP CTIN, HELP CTOP, and HELP CTOZ.

This database is provided on an "as is" basis. Please consult the suppliers for current information regarding pricing, regional availability, available quantities, purities, etc. THERE ARE NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. ACS is not liable for any loss of profit, goodwill or any other damages arising out of the use of this database.

CHEMCATS now contains more than 17 million records. See HELP CONTENT and NEWS FILE for details.

## 10/540304

=> s 13

CA SUBSCRIBER PRICE

=> log h SINCE FILE TOTAL ENTRY SESSION 0.93 179.43 COST IN U.S. DOLLARS FULL ESTIMATED COST DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

0.00 -0.78

SESSION WILL BE HELD FOR 120 MINUTES STN INTERNATIONAL SESSION SUSPENDED AT 14:04:41 ON 26 DEC 2007